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**EDUCATION**

# University Of Maryland's New Institute For Health Computing Promises Big Advances

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**The Institute for Health Computing, an initiative by the University of Maryland, will become the newest academic center dedicated to advancing the field of precision medicine.**

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The [University of Maryland Strategic Partnership: MPowering the State](#) (MPower) has announced that it is establishing an Institute for Health Computing that will focus on artificial intelligence and advanced computing to further develop

the field of precision medicine and improve health care for patients across the state.

The new institute will be located in North Bethesda under the combined leadership of the University of Maryland, Baltimore (UMB) and the University of Maryland, College Park (UMCP), in collaboration with the University of Maryland Medical System and Montgomery County, Maryland.

The Institute for Health Computing is the newest initiative from MPower, a collaboration that was created in 2012 to join UMB's and UMCP's academic strengths in order to strengthen Maryland's innovation economy, promote interdisciplinary research, and create more educational opportunities for students.

The institute is expected to open in leased space early next year, with completion of new laboratory and office space projected for 2028. Initial funding includes \$25 million from MPower. The Montgomery County government will kick in an additional \$40 million to develop the permanent site.

The new institute will formulate algorithms that will guide highly personalized patient care for illnesses such as diabetes, high blood pressure, risks of opioid overdose and other health conditions. De-identified data from about 1.8 million patients will be used to generate "clinical analytics that may ultimately lead to faster diagnoses, improvements in how therapeutics are utilized and a range of other improved outcomes for our patients, as well as patients all over the world," according to University of Maryland Medical System President and CEO Mohan Suntha.

In addition, the institute will increase the availability of telehealth, particularly in rural communities. Virtual reality technology is rapidly changing medical education by enabling medical students to practice clinical interventions in virtual environments.

“Scaling up research to address grand challenges in the life sciences has shifted from collecting data to using cutting-edge technology to discover meaningful patterns hidden in the data,” according to Darryll J. Pines, UMCP president. “This institute will tap world-class researchers who are exploring artificial intelligence, machine learning, and virtual and augmented reality to collaborate with medical experts, leading to broad impacts on human health and well-being.”

UMB President Bruce E. Jarrell, said “we are witnessing an unprecedented revolution in health care that is being driven by biomedical innovation, the digitization of medical records, and advances in machine learning and artificial intelligence. This new institute will include all of these elements in a synergistic effect that will transform our health care system.”

The institute is the latest example of how “big data” is revolutionizing the practice of medicine - allowing diagnosis and treatment to be tailored to the genetic makeup, lifestyle, and unique biology of individual patients. The new wave of personalized medicine is finding homes at leading [research universities and academic medical centers across the country](#).

The Centers For Disease Control now has an [Office of Genomics and Precision Public Health](#), the new name for what used to be called the Office of Public Health and Genomics. And in January, the National Institutes of Health announced it would spend \$170 million over the next five years in the field of precision nutrition. That [initiative](#), entitled *The Nutrition for Precision Health*

*powered by the All of Us Research Program (NPH)*, aims to recruit up to 10,000 participants to take part in a variety of research studies at several U. S. universities and academic health centers.